

Water Planning

Idaho's Boise valley has grown in population from 257,000 in 1980 to 431,000 in 2000. An important issue facing water planners is water availability in a valley that is changing from agricultural land-use to more urban types of land use. In this analysis, the Idaho Department of Water Resources personnel interpreted year 2000 aerial photographs, delineated land use / land cover polygons, and overlaid the polygons on an evapotranspiration "image" output from the METRIC evapotranspiration model. The result was seasonal evapotranspiration by land use / land cover polygon, and we processed the "image" to compute the mean evapotranspiration for all polygons of each land use / land cover class. The results show irrigated agriculture uses more water than do new subdivisions or old residential land.

This information is not available from any other source. Landsat thermal data enable water resources planners to understand the water demands of future growth in a way not otherwise possible.

